

A Two-Sided Estimate of the Solution of a Linear  
Functional Equation

SOV/20-127-1-8/65

ASSOCIATION: Kazanskiy gosudarstvennyy universitet imeni V.I.Ul'yanova-  
Lenina (Kazan' State University imeni V.I. Ul'yanov-Lenin)

PRESENTED: March 14, 1959, by S.L. Sobolev, Academician

SUBMITTED: March 11, 1959

Card 3/3

SLUGIN, S.N.

Method for the exchange of a linear equation in an abstract normalized space. Izv. vys. ucheb. zav.; mat. no. 3:235-240 '60.

(MIRA 13:12)

1. Kazanskiy gosudarstvennyy universitet imeni V.I. Ul'yanova-Lenina.

(Functional analysis)

11.5400

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S/020/60/131/06/009/071

AUTHOR: Slugin, S. N.

TITLE: Linear Semiordered Topological Spaces 16

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol. 131, No. 6, pp. 1261-1263

TEXT: Let  $X$  be a linear structure (Ref. 3) and a linear topological space (Ref. 4) with basis of neighborhoods  $G$  of  $\theta$ ; let  $\lambda G \subset G$  for  $|\lambda| \leq 1$ .  $G$  is called monotone, if from  $|x| \leq |y|$ ,  $y \in G$  it follows  $x \in G$ . If every neighborhood is monotone, then the basis is called monotone. Definition 2: A linear structure which is a linear topological space with a monotone basis is called a linear semiordered topological space (KT-space). Let denote  $\sup\{x, y\} = x \vee y$ ,  $\inf\{x, y\} = x \wedge y$ . Definition 3: A subset  $K$  of the linear structure  $X$  which consists of elements  $x > \theta$  is called open positive, if  $K$  with an arbitrary pair of elements  $u, v$  also contains  $u \wedge v$  and  $\frac{1}{n}u$  ( $n$  natural number).

Theorem 1: If an open positive subset  $K$  exists in the  $K$ -space  $X$  and if  $G$  is defined by the inequality  $|x| < u \in K$ , then  $X$  is transformed into a KT-space. Here from the topological convergence it follows the (0)-convergence (Ref. 1). If from the relations  $x_n > x_m, \inf\{x_n\} = \theta$  it follows  $x_n < u$  for  $n = n(u)$ , then from the (0)-convergence it

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# Linear Semiordered Topological Spaces

follows the topological convergence of a (countable) sequence.

Theorem 2: In the KT-space 1.) all majorizable sequences are convergent, 2.) the absolute value, upper and lower bounds and inequalities are continuous, 3.) the intermediate variable has a limit value, 4.) the monotone variable is comparable with the limit, i.e. from  $x_n \rightarrow x$ ,  $y_n \rightarrow y$  it follows: 1.) from  $|z_n| \leq |x_n|$ ,  $x = \theta$  it follows  $z_n \rightarrow \theta$ ; 2.)  $|x_n| \rightarrow x$ ,  $x_n \vee y_n \rightarrow x \vee y$  from  $x_n \leq y_n$  it follows  $x \leq y$ ; 3.) from  $x_n \leq z_n \leq y_n$ ,  $x = y$  it follows  $z_n \rightarrow x$ ; 4.) from  $x > x_{n+1}$  it follows  $x_n > x$ .

The author shows that in KT-spaces the theorem 4 of (Ref.5) and the results of § 2 of (Ref.6) (two-sided estimations of the solution of non-linear functional equations) remain valid. The majorant method of (Ref.1) can be improved in KT-spaces.

Card 2/3

80075

S/020/60/131/06/009/071

Linear Semiordered Topological Spaces

There are 7 Soviet references.

ASSOCIATION: Kazanskiy gosudarstvennyy universitet imeni V. J.  
Ul'janova-Lenina (Kazan' State University imeni  
V. J. Ul'janov-Lenin)

PRESENTED: December 22, 1959, by S. L. Sobolev, Academician

SUBMITTED: December 22, 1959

Card 3/3

SLUGIN, S.N.

Partially ordered topological groups. Dokl.AN SSSR 136 no.1:36-  
38 Ja '61. (MIRA 14:5)

1. Kazanskiy gosudarstvennyy universitet im. V.I.Ul'yanova-Lenina.  
Predstavleno akademikom S.L.Sobolevym.  
(Topology)

SLUGIN, S.H.

Moduli over K-space. Dokl. AN SSSR 139 no.5:1059-1062 Ag '61.  
(MIRA 14:8)

1. Gor'kovskiy gosudarstvennyy universitet im. N.I.  
Lobachevskogo. Predstavleno akademikom S.L. Sobolevym.  
(Spaces, Generalized)  
(Functional analysis)

SLUGIN, S.N.

Monotone processes of bilateral approximations in a partially  
ordered convergence group. Dokl. AN SSSR ~~147~~ no.1:34-37  
N '62. (MIRA 15:11)

1. Gor'kovskiy gosudarstvennyy universitet im.  
N.I. Lobachevskogo. Predstavleno akademikom S.L. Sobolevym.  
(Approximate computation)  
(Groups, Theory of)



SLUGIN, S.N.

A complex semiordered space and moduli over it.  
Dokl. AN SSSR 147 no.2:306-309 N '62. (MIRA 15:11)

1. Gor'kovskiy gosudarstvennyy universitet im.  
N.I. Lobachevskogo. Predstavleno akademikom S.L. Sobolevym.  
(Spaces, Generalized)

SLUGIN, S.N.

Use of the steepest descent method in a Hilbert modulus over a  
finite-dimensional complex  $K$ -space. Dokl. AN SSSR 152 no.4:  
834-837 0 '63. (MIRA 16:11)

1. Gor'kovskiy gosudarstvennyy universitet im. N.I. Lobachevskogo.  
Predstavleno akademikom S.L. Sobolevym.

SINGIN, S.N.

(Continued)

Certain partially ordered objects in the theory of approximation methods. Izv. vys. shk. matem. fiz. no. 6:138-151 '63  
(MIRA 17:8)

SLUGIN, S.N.; SHASHKOV, V.M.

Combination of some variational methods in a Hilbert modulus  
over a series of vector spaces. Uch. zap. Kaz. un. 124 no.6:  
284-292 '64. (MIRA 18:9)

SLUGIN, S.N.

Complex Hilbert structure. Izv. AN SSSR. Ser.mat. 29 no.1:215-226  
'65. (MIRA 18:4)

SHISHKOV, V.P., dotsent; BABAK, I.M., aspirant; SOLOV'YEV, F.A., dotsent;  
DANILEVSKIY, V.M., dotsent; VISHNYAKOV, S.I., dotsent;  
TITOV, G.I.; OKUNTSOV, L.P.; AFANAS'YEV, V.P.; ZHAROV, A.V.,  
assistant; SLUGIN, V.S.; KRYLOV, O.N., aspirant

Noninfectious diseases. Veterinariia 41 no.4:64-80 Ap '64.  
(MIRA 17:6)

1. Moskovskaya veterinarnaya akademiya (for Shishkov, Zharov).
2. Belotserkovskiy sel'skokhozyaystvennyy institut (for Babak).
3. Velikolukskiy sel'skokhozyaystvennyy institut (for Solov'yev).
4. Kurskiy sel'skokhozyaystvennyy institut (for Vishnyakov).
5. Zaveduyushchiy otделom nezaraznykh zabolovaniy Buryatskoy  
nauchno-proizvodstvennoy veterinarnoy laboratorii (for Titov).
6. Zaveduyushchiy Berezovskoy veterinarnoy laboratorii,  
Volgogradskaya obl. (for Okuntsov). 7. Nauchno-issledovatel'skiy  
institut sel'skogo khozyaystva Kraynego Severa (for Afanas'yev).
8. Pushkinskiy zverosovkhoz Moskovskoy oblasti (for Slugin).
9. Leningradskiy veterinarnyy institut (for Krylov).

CARD: 1/2

COUNTRY : USSR  
CATEGORY :

M-6

ABS. JOUR. : RZBiol., No. 19, 1958, No. 87092

AUTHOR : Slugina, A. F.  
INST. : Chkalov Scientific Research Institute of  
TITLE : Mineral Fertilizers for Perennial Grasses

ORIG. PUB. : Tr. Chkalovskiy n.-i. in-t molochno-myasn.  
skotovodstva, 1956, No 10, 163-171

ABSTRACT : Trial plantings with application of fertilizer, of alfalfa, thickspike wheatgrass, and fescue, have shown that the effect of fertilizers was more pronounced on aftermath yields than on the primary grass stand. The best effect upon alfalfa yield was produced by phosphorus fertilizers (130% dry weight in comparison with controls). Highest increase of wheatgrass was obtained on application of nitrogen fertilizers. The effect of fertilizers is increased on increase of the number of harvests. Concurrently with increasing yields of above-ground portions of the plants, application of fertilizers increases average weight of roots, and shoot formation. Field trials have fully

CARD: 1/2

Country : USSR  
CATEGORY :

ABS. JOUR. : RZBiol., No. 19, 1958, No. 87092

AUTHOR :  
INST. :  
TITLE :

ORIG. PUB. :

ABSTRACT : confirmed the results of the experimental plantings. For blue alfalfa the most effective is an autumn application of phosphorus fertilizers (35 kg of active ingredient), and 25 kg before the growing of spring aftermath. For thickspike wheatgrass the most effective is a three-increment application of nitrogen fertilizers together with phosphorus fertilizers: during late autumn, before growth of spring aftermath, and before growth of autumn aftermath (each at a rate of 20 kg/hectare of active ingredient). -- N. I. Grib.

CARD: 2/2

BAYKINA, V.M. [deceased]; HAMIDOV, S.M. [deceased]; KADANOVA, L.N. [deceased];  
Z.P.; SLUGINA, M.E., DZEGULENKO, M.E.

Comparative study of neomycin, colimycin and mycerin by the counter-  
current distribution method. Antibiotiki 8 no.12:1059-1064 D '63.  
(MIRA 19640)

L. Vsesoyuznyy nauchno issledovatel'skiy institut antibiotikov.



LIBINSON, G.S.; MUGINA, M.D.

Equilibrium sorption of vancomycin A by cation exchangers.  
Zhur. fiz. khim. 39 no.11:2813-2815 N 1963.

(MRa 18:12)

L. Vsesoyuznyy nauchno-issledovatel'skiy institut antibiotikov.

NOV. . . . ., H. H. H. H. H.

the reaction of polymerisable organosilicon oligomers, diethoxymethacrylate poly(alkyl-(alkylaryl)-siloxanes. Plast. massy no. 8:21-22 '65. (MIRA 18:9)

SLUGINA, Z.P.; VOZNESENSKAYA, Ye.V.; VASIL'YEVA, N.I.

Using methyl isobutyl ketone for removing paraffin from oil fractions. Khim. i tekhn. topl. i masel no.1:42-49 Ja '57.  
(MLRA 10:2)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut Neftyanoy promyshlennosti.  
(Paraffins) (Pentanone) (Lubrication and lubricants)

IVANOV, V.S., inzh.; SLUGINA, Z.P., inzh., red.; VOZNESENSKAYA, Ye.V.,  
inzh., red.; BRONSHTEYN, I.I., red.; BORUNOV, N.I., tekhn.red.

[Stabilization and reclamation of oils used in power generating  
machinery] Stabilizatsiya i vosstanovlenie energeticheskikh  
masel. Moskva, Gos.energ.izd-vo, 1958. 26 p. (MIRA 12:2)

1. ORGRES, Trust, Moscow.  
(Oil reclamation)

VOZNESENSKAYA, Ye.V.; SLUGINA, Z.P.; KUTUKOVA, V.I.; YAKOBI, F.S.;  
SHAKHSUVAROVA, G.V.; VASIL'YEVA, N.I.; GRYAZNOV, B.V.; ROZENSHTYN,  
M.Z.

Production of low pour-point oils from eastern paraffin-base  
crudes by means of dewaxing with the aid of selective solvents.  
Trudy VNII NP no.7:69-78 '58. (MIRA 12:10)  
(Petroleum--Refining) (Lubrication and lubricants)

VASIL'YEVA, N.I.; VOZHESKAYA, Ye.V.; SLUGINA, Z.P.

Rapid method for determining the potential oil content of re-  
fined oil fractions. Trudy VNII NP no.7:276-282 '58.

(MIRA 12:10)

(Petroleum products)

SLUGINA, Z.P.; VOZNESENSKAYA, Ye.V.; VASIL'YEVA, N.I.

Study of the low-temperature crystallization of solid hydrocarbons from solutions depending on the conditions of cooling.

Trudy VNII NP no.7:328-339 '58.

(MIRA 12:10)

(Hydrocarbons) (Crystallization)

27-4-6/25

AUTHOR: Sluginov, G., Instructor of the Buryat-Mongol Oblast' Committee  
of the USSR Communist Party

TITLE: The Party's Oblast' Committee Helps Out (Obkom partii pomogayet)

PERIODICAL: Professional'no - Tekhnicheskoye Obrazovaniye, 1958, # 4, p 13  
(USSR)

ABSTRACT: The republic contains 14 labor reserve educational institutions with some 3,000 pupils. The local communist party has studied the causes of the lack of adequate education and has come to the conclusion that the pedagogic collectives work badly, largely because teachers and foremen take no pains in preparing their lessons and do not have enough graphic material. There are enough good teachers and foremen but their work is unorganized, incomplete, undisciplined.

ASSOCIATION: Buryat-Mongol'skiy oblastnoy komitet KPSS (Buryat-Mongol Oblast  
Committee of CP USSR)

AVAILABLE: Library of Congress  
Card 1/1





on General and Special Art Factory New Tasks

SOV/27-08-11-1/65

school with 2 to 3 years of training; the village professional-technical school with 1 to 2 years training. He mentions the necessity of introducing certain changes in the organization and methods of training, and points out the lack of coordination prevailing at present between the theoretical instruction of the teachers and the practical training, conducted by the foremen. He also makes suggestions for placing education on a more economic foundation.

ASSOCIATION: Buryatskiy obkom KPSS (The Buryat Obkom KPSS)

Card 2/2

. HROCH, Jozef, mgr inz.

Planetary gear for conveyer driving. Rudy 1 metale 9  
no.10:571-574 0 '64.

SLUKA, A.Ye.

Principal features of the geography of population migrations in France.  
(MLRA 6:7)  
Vop.geog. vol.29:225-246 '52.  
(France--Migration, Internal) (Migration, Internal--France)

SHUM, A. YU.

Defended his Candidates dissertation in the Geography Faculty of Moscow State University on 3 July 1952.

Dissertation: "The Geography of the Migrations of Population in France in Connection With the Depopulation of Villages."

SO: Vestnik Moskovskogo Universiteta, Seriya Fiziko-Matematicheskikh i  
Istobitvennykh Nauk, No. 1, Moscow, Feb 1953, pp 151-157: transl. in  
W-29782, 12 April 54, For off. use only.

SLUKA, A.Ye.

The Saar industrial region. Geog. v shkole. no.2:27-29 Mr-Ap '53.  
(MIRA 6:5)  
(Saar Valley--Industries)

ALEKSANDROVSKAYA, N.V.; RYABCHIKOV, A.M.; SLUKA, A.Ye.

Results of admission examinations in geography at Moscow University.  
Geog.v shkole 18 no.5:29-31 S-O '55. (MIRA 8:12)  
(Geography--Study and teaching)

SLUKA, A. Ye.

~~AND: KROKOVICH, B. P. 1975~~

Industry of France. Geog. v shkole 18 no.6:19-27 E-D '55.  
(France--Industries) (NLR 9:1)



SLUKA, A.Ye.

Paris as a center of attraction for population. Vop.geog.  
no.38:177-195 '56. (MLRA 9:9)

(Paris--Population)

SLUKA, A.Ye.; YASHCHENKO, G.I.; TIKHOMIROV, V.P., otvetstvennyy red.;  
CHIZHOV, M.N., red.; NOGINA, M.I., tekhn.red.; GOLITSYN, A.V., red.kart.

[France, Belgium, Netherlands, Luxemburg, Monaco] Frantsia,  
Bel'giya, Niderlandy, Liuksemburg, Monako. Moskva, Gos.izd-vo  
geogr.lit-ry, 1957. 31 p. (MIRA 10:12)  
(Europe, Western--Geography)

SLUKA, A.; LOBZOVA, N.A., red.; CHIZHOV, N.N., red.

[Belgium] Bel'gija. Scale 1:500000. Moskva, Gos.izd-vo geogr.  
lit-ry, 1959. col.map fold. [\_\_\_Belgium] \_\_\_Bel'gija. 25 p.  
(MIRA 13:3)

1. Russia (1923- U.S.S.R.) Glavnoye upravleniye geodezii i  
kartografii.

(Belgium--Maps)

YEVTEYEV, C.A.; SLUKA, A.Ye.

Second edition of the French National Atlas in a new stage in the  
development of the French geography and cartography. Izv. AN  
SSSR. Ser. geog. no. 4:140-143 J1-Ag '61. (MIRA 14:7)  
(France--Maps)

SLUKA, A.Ye.

New administrative and economic division of France. Vop. geog.  
no.53:126-130 '61. (MIRA 14:7)  
(France--Administrative and political divisions)  
(France--Economic zoning)

SLUKA, A.Ye.

Geography at the Sorbonne. Vest.Mosk.un.Ser.5: Geog. 17  
no.3:57-62 My-Je '62. (MIRA 15:8)

1. Kafedra ekonomicheskoy i politicheskoy geografii kapitalisti-  
cheskikh i slaborazvitykh stran Moskovskogo universiteta.  
(Paris--Geography--Study and teaching)

SIKA, I.Ye.

Geography of the Soviet Union. Vol. 9, p. 64:9-11, 164.

(MIRA 17:10)

I. M. Kuznetsov. Sovetskaya universitet geografiy  
fakultet.

SLUKA, FRANTISEK

JIROVEC, Otto, prof. Dr; SLUKA, Frantisek, MUDr; SVOBODA, Adolf, MUDr;  
VALIHRACH, Jan, MUDr; VOJTOVA, Helena, MUDr

Tularemia in Jihlava and Valtice regions in 1945-1952. 1. Intracutaneous tests with tularin. Cesk. hyg. epidem. mikrob. 2 no.3: 328-336 June '53.

1. Parasitologicky ustav Karlovy university v Praze (for Jirovec)
  2. Statni okresni nemocnice ve Valticich. (for Sluka) 3. Krajska hyg. epidem. stanice v Brne. (for Svoboda) 4. Krajska hyg. epidem. stanice v Uherskem Hradisti. (for Valihrach) 5. Krajska hyg. epidem. stanice v Jihlava. (for Vojtova)
- (TULAREMIA, epidemiology,  
Czech.)



HARDOS, V.; SLUKA, Fr.

Acute human infections caused by Tahyna virus. Cas. lek. cesk. 102  
no.15:394-402 12 Ap '63.

1. Ustav epidemiologie a mikrobiologie v Bratislave a Interne oddelenie  
nemocnice vo Valticiach, OUNZ Breclav.

(VIRUS DISEASES) (TACHYCARDIA) (LEUKOCYTOSIS)  
(BLOOD SEDIMENTATION) (NEUTRALIZATION TESTS)  
(HEMAGGLUTINATION INHIBITION TESTS) (LUNG) (DIAGNOSIS)  
(THORACIC RADIOGRAPHY)

SECRET  
CZECHOSLOVAKIA/Chemical Technology - Chemical Products and  
Their Application, Part 3. - Fermentation Industry.

H-26

Abs Jour : Ref Zhur - Khimiya, No 7, 1958, 23018

Author : Josef Sluka

Inst :

Title : Existing and Planned Shops for Washing, Filling and  
Plugging Bottles.

Orig Pub : Prumysl potravin, 1957, 8, No 8, 431-433

Abstract : Description of individual aggregates and general evalua-  
tion of mechanized workshops.

Card 1/1

1. BRADICINI, F.; LUTER, J.; STICHOVSKY, V.

Antitubercular drugs. XIV. Isonicotinoylhydrazones of some phenylglyoxylic acids. Cesk. farm. 13 no.7:345-349 G 1962.

1. Vyzkumny ustav pro farmaci a biochemii, Praha.

BUDESINSKY, Z.; PERINA, Z.; SLUKA, J.

5-Arylpyrimidines. I. 5-Aryl-2-thiocytoines and 5-arylcytoines.  
Cesk. farm. 11 no.7:345-354 S '62.

1. Vyzkumny ustav pro farmacie a biochemii, Praha.  
(CYTOSINE)

SLUKA, K.

Projecting plants for the manufacture of furniture. p. 35

CZECHOSLOVAK HEAVY INDUSTRY. (Ceskoslovenska obchodni komora) Prague,  
Czechoslovakia. No. 3, 1959

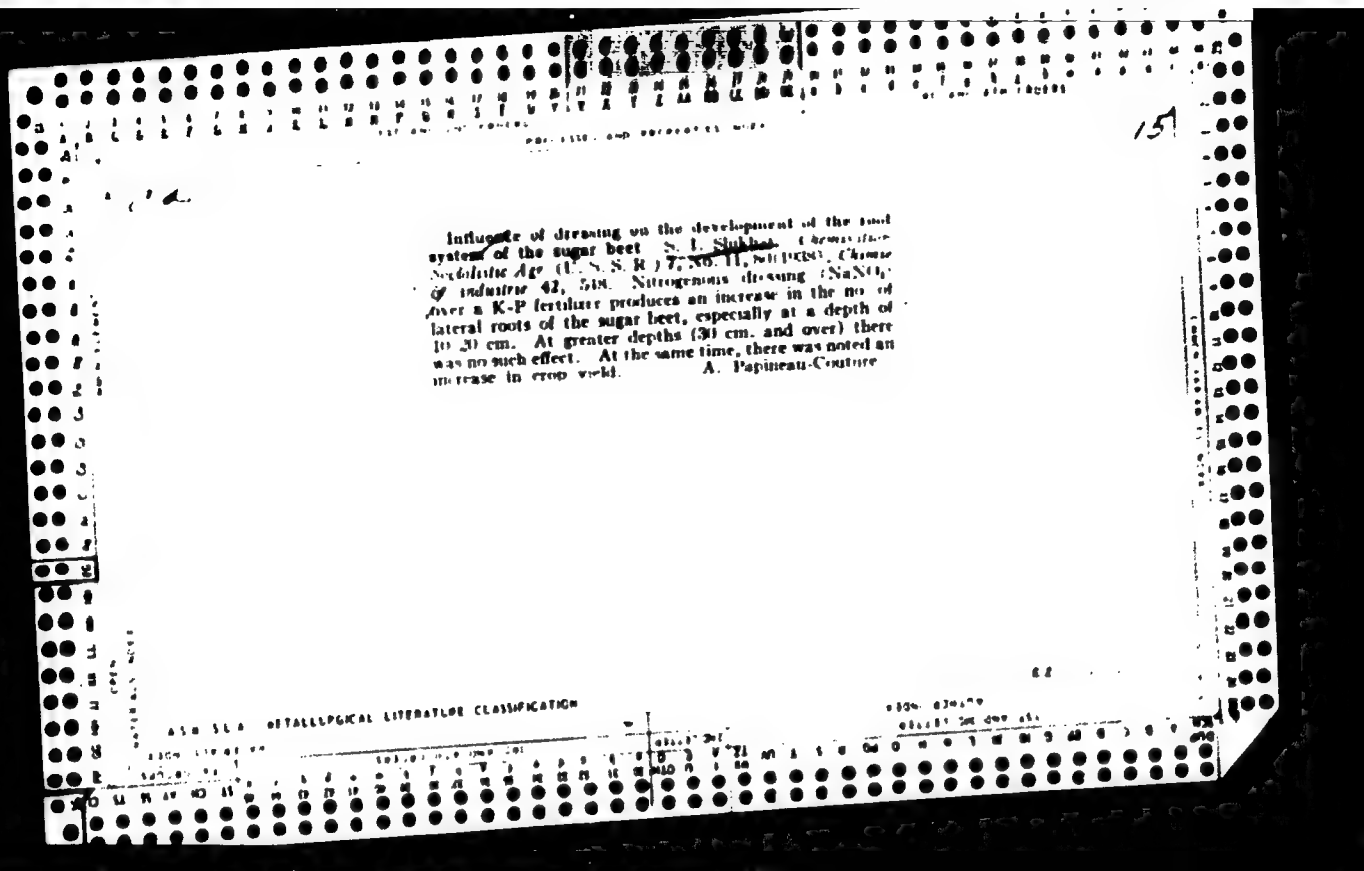
Monthly List of East European Accessions (EFAI), LC, Vol. 8, No. 7, July 1959  
Uncl.

SLUKHAY, I., polkovnik

Sense of party duty. Komm Vooruzh. Sil 46 no.6:23-27  
Mr '65. (MIRA 18:11)

SLUKHAY, Ivan Andreyevich, polkovnik; SOKOLOV, V.D., podpolkovnik,  
red.

[Rockets and traditions] Rakety i traditsii. Moskva,  
Voenizdat, 1965. 223 p. (MIRA 18:7)





SLUKHAY, S. I.

Paranovskiy, A.I. and Slukhay, S. "On the problem of the method of determining the resistance of soil to erosion", Trudy Zhukovsk, S. kh. in-ta, Vol. 111, 1949, p. 97-100.

SO: V-4030, 16 Sept. 53, (Letopis Zhurnal Vyssh Statey, No. 23, 1949).

1. The influence of potassium permanganate on germination and initial growth of some tree species. S. I. Siukhal and V. N. Kostomarov. *Dopovidni Akad. Nauk Ukr. R.S.R.* 1952, 289-93 (Russian summary, 283-4).—The seeds were soaked 15 min. in  $KMnO_4$  soln. 1-10 mg./l. The optimal concn., 5 mg./l., produced the following changes in germination per cent and initial growth in 14 days (by wt.): seeds of Siberian larch stored 1.5 year, increase of 48-66%, increase of 20%; fresh seeds of Siberian acacia increase of 22-83%, increase of 33%; by 1-year-old seeds of Siberian acacia increase of 31-83%, increase of 23%; seeds of silver maple —, increase of 73%. A. Sementsov

M. ①  
D. ①

*Inst. Forestry, Acad. Sci Ukr SSR*

additionally, the authors also found that the effect of the interaction between the two variables was not significant.

2000

U.S. GOVERNMENT PRINTING OFFICE: 1967 O 340,100

North: List of Russian Accessions, Library of Congress  
June 1953. HCL.

SECRET  
The influence of some conditions of growth on the content of tannins and dry substances in the leaves of smoke tree (*Rhus cotinus*). S. I. Sukhal and I. I. Mikheeva. *Dopovidi Akad. Nauk Ukr. R.S.R.* 1955, 551-4 (Russian)

summary, 554-5).—The content of tannins and dry substances in the leaves of *R. cotinus* varies depending on the illumination, part of the plant and time of the year, being highest in the upper third of the plant exposed to sunlight in the first half of the summer. R. Dowhenko

Inst. Forestry, Acad. Sci. Ukr. SSR.

*Slukhay, S.I.*

USSR/Forestry - Forest Plants.

K-5

Abs Jour : Ref Zhur - Biol., No 2, 1958, 5905

Author : Slukhay, S.I.

Inst : Institute of Forestry, Academy of Sciences UkSSR

Title : The Influence of Manganese and Boron on the Germination and Growth of Young Forest Plants.

Orig Pub : Sb. Mikroelementy v s.-kh i meditsine, Riga, Akad Nauk LatvSSR, 1956, 455-463

Abstract : When seeds of the yellow acacia, white mulberry, and common pine, all possessing lower than average germinability, were soaked for 12 hours before sowing in a solution of  $KMnO_4$  (5-10 mg/liter of water), germination was increased 20-33%. There was a simultaneous increase in the seeds' growing energy, and seedlings were bigger (in terms of dry matter). In vegetation experiments on podzolized

Card 1/2

COUNTRY : USSR  
 CATEGORY : Forestry. Forest Cultivation. X  
 ABS. JOUR. : RZhBiol., No. 14 1959, No. 63230  
 AUTHOR : Glukhiv, S. I.  
 INSTIT. : Ukrainian Scientific-Research Institute of Forestry  
 Improvement of the Nutrition Conditions for Love  
 Velvet Trees Using Fertilizer  
 ORIG. PUB. : Dokl. Akademiya Nauk. Ukrain. SSR, No. 1, 1959, No. 1000  
 ABSTRACT : *Vegeta i agrolomatsiya*, 1957, No. 3-4, 37-42  
 : It was established by first observations in forest  
 nurseries that love velvet seedlings require fertile  
 light soils with sufficient moisture. The cited experi-  
 ments for studying the influence of fertilizer on the  
 growth of the seedlings were performed on soils of  
 average and light loamy composition in the western part  
 of the Forest-Steppe (Ukrainian SSR). At the Fastov  
 State Forest Nursery and at the Golosyevskaya Experi-  
 mental Base (near Kiev), basic and ordinary fertilizers  
 were tested, both applied with the seeds in the  
 : Management and Agricultural and Forest Amelioration  
 13  
 : "Love velvet" or "velvet tree" is the Russian name of  
*Phellodendron*

ABS. JOUR. : RZhBiol., No. 14 1959, No. 63230  
 AUTHOR :  
 INSTIT. :  
 ORIG. PUB. :  
 ABSTRACT : sowing trenches. It both covered the area of fertiliz-  
 ing with nutritive material and basofic ent. It is  
 found that good results are obtained with application of  
 150 kg/ha of  $P_2O_5$ ; the effect increases with the  
 addition to the  $P_2O_5$  of 10 centners/hectare of urea - rich-  
 ness; further increase of the rates of fertilization  
 is almost not reflected in the results. The application  
 of  $P_2O_5$  or its addition to  $P_2O_5$  extended the vegetative  
 period, a result which had a negative effect on the  
 formation and winter resistance of the plants. Most  
 effective was the use of basic fertilizers, with 20 tons/  
 hectare of urea +  $P_2O_5$  in the amount of 500 kg/hectare

Card:

SLUKHAY, S.I.

Effect of mineral fertilizers on the growth of poplar roots  
at an early age. Dop. AN URSR no.3:410-413 '62. (MIRA 15:5)

1. Ukrainskiy nauchno-issledovatel'skiy institut fiziologii  
rasteniy. Predstavleno akademikom AN USSR P.A.Vlasyukom.  
(Fertilizers and manures) (Poplar)

GURKINAY, Stepan Ivanovich; VLASYUK, I.A., akademik, otv. red.,  
KUZNETSOVA, A.H., red.

[Nutrition and fertilization of young woody plants] Pi-  
tanie i udobrenie molodykh drevesnykh rastenii. Kiev,  
Naukova dumka, 1965. 300 p. (MIRA 18.7)

1. AN Ukr.SSR i Vsesoyuznaya akademiya sel'skokho-  
zyaystvennykh nauk imeni V.I.Lenina (for Vlasjuk).



SLUKHAY, Tat'yana Dmitriyevna; YEMEN, Nikolay Fedorovich;  
DNEKOV, Ye., red.

[Centralization of the accounting in public institutions]  
1Centralizatsiia ucheta v biudzhetnykh uchrezhdeniyakh.  
Moskva, Izd-vo "Finansy," 1964. 102 p. (NIRA 17:8)

SLUKHAY, V.V.

Materials on the parasitic Protozoa of fishes in the northern  
Donets basin. Dop. AN URSR no.3:408-411 '64.  
(MIRA 17:5)

1. Khar'kovskiy meditsinskiy institut. Predstavleno akademi-  
kom AN UkrSSR A.P. Markevichem [Markevych, O.P.].

SLUKHAY-NATAL'CHENKO, A.Ye.

Effect of freshly isolated *Asotolacter* strains on the crop yield.  
Trudy Vses. inst. sel'khoz. mikrobiol. no.14:236-241 '53.  
(MIRA 15:4)

(*Asotobacter*) (Crop yields)

SLUKHAYEV, V.V.

Affine symmetrical vector fields. Sib. mat. zhur. 6 no.4:924-933  
Jl-Ag '65. (MIRA 18:10)

ACC NR: AP7008931

SOURCE CODE: UR/0199/66/007/005/1115/1129

AUTHOR: Slukhayev, V. V.

ORG: none

TITLE: Dual field and cylindrical fluid flow

SOURCE: Sibirskiy matematicheskiy zhurnal, v. 7, no. 5, 1966, 1115-1129

TOPIC TAGS: fluid flow, geometry

SUB CODE: 20,12

ABSTRACT: The article studies the equiaffine geometry of dual field, which is defined as a field consisting of a pair of reciprocal vectors given at each point of a three-dimensional space. The author considers one particular class of three-dimensional fluid flow: viz., cylindrical flow, in which contravariant vector  $V$  is most naturally associated with contravariant velocity vector  $v$ . The author notes that all existence theorems in the article are proved by employing a theorem of V. V. Vasinin. Orig. art. has: 56 formulas. [JPRS: 40303]

UDC: 513.73

Card 1/1

SLUKHOTSKIY, A. YE.

Is. 11111;

On the frequency for the surface tempering of parts by the induction method,  
and its application in the tractor industry. *Int. trakt. rev.*, no. 1, 1952.

U.S. ARMY AIR FORCE ENGINEERING RESEARCH DEVELOPMENT CENTER, WRIGHT-PATTERSON AIR FORCE BASE, OHIO 45433-6151, LIBRARY OF AERONAUTICS, OCTOBER 1991. "UNCLASSIFIED."

SLUKHOTSKIY, A.Ye.

Application of ionic converters in feeding induction heating  
installations. [Isdaniia] LOMITOMASH no.30:99-110 '52. (MLRA 8:1)  
(Electric current converters)

SLUKHOTSKIY, A. Ye.

Selection of current frequency for induction heating. [Izdaniia]  
LONITOMASH no.30:197-212 '52. (MLRA 8:1)  
(Induction heating)



8(5)

PHASE I BOOK EXPLOITATION

SOV/1322

Slukhotskiy, A.Ye.

Zakalochnyye induktory (Induction Heaters for Hardening) Moscow, Mashgis, 1954.  
46 p. (Series: Bibliotekha vysokochastotnika-termista, vyp. 6) 5,000 copies  
printed.

Reviewer: Vasil'yev, A.S., Candidate of Technical Sciences; Ed.: Fogel', A.A.,  
Candidate of Technical Sciences; Tech. Ed.: Sokolova, L.V.; Managing Ed.  
for Literature on the Design and Operation of Machines (Leningrad Division,  
Mashgis): Fetisov, F.I., Engineer.

**PURPOSE:** The booklet is intended for readers interested in the applications  
of induction heating.

**COVERAGE:** The booklet gives a concise and simplified description of design  
principles of basic types of induction heaters for high-frequency surface  
hardening of steel details. The author explains approximate methods of  
calculating the parameters of induction heaters, based chiefly on the use of  
graphs. This method of approximate calculation was checked in practice at the  
Card 1/3

Induction Heaters for Hardening (Cont.)

SOV/1322

Nauchno-issledovatel'skiy institut tokov vysokoy chastoty imeni professora V.P. Vologdina (Scientific-Research Institute of High-frequency Currents). There are 7 Soviet references appearing in footnotes.

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Card 2/3

SLUKHOTSKIY, A.Ye.; RYSKIN, S.Ye.; SHEPELYAKOVSKIY, K.Z., kandidat  
tekhnicheskikh nauk, retsenzent; GOLOVIN, G.F., kandidat tekhnicheskikh nauk, redaktor; PETERSON, M.M., tekhnicheskii redaktor

[Inductors for induction heating of machine construction parts;  
planning and manufacture] Induktory dlia induktsionnogo nagreva  
mashinostroitel'nykh detalei; proektirovanie i izgotovlenie. Moskva,  
Gos. nauchno-tekhn. izd-vo mashinostroit. i sudostroit. lit-ry, 1954.  
319 p. (MLRA 7:11)

(Induction heating) (Machinery industry)

DONSKOY, A.V., doktor tekhnicheskikh nauk.

Inductors for induction heating of machine parts. A.B.Slukhotskii,  
S.B.Ryskin, reviewed by A.V.Donskoi. Vest.mash. 35 no.10:88 0  
'55. (MIRA 9:1)  
(Induction heating)(Steel--Heat treatment)

YEVANGULOVA, Yevgeniya Pavlovna; FOGEL', A.A., kandidat tekhnicheskikh nauk, redaktor; SPITSYN, M.A., kandidat tekhnicheskikh nauk, redaktor; SLUKHOTSKIY, A.Ye., kandidat tekhnicheskikh nauk, redaktor; GLUKHANOV, N.P., kandidat tekhnicheskikh nauk, redaktor; BAMUNER, A.V., inzhener, redaktor; SIMONOVSKIY, N.Z., redaktor izdatel'stva; MIKHAYLOV-MIKHEYEV, P.B., doktor tekhnicheskikh nauk, retsenzent; SYCHEVA, O.V., tekhnicheskij redaktor.

[Quality control of surface hardening] Kontrol' kachestva poverkhnostnoi sakalki, Izd. 2-ee, ispr. 1 dop. Pod.red. A.A. Fogelia. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit. lit-ry, 1957. 33 p.(Bibliotekha vysokochastotnika-termista, no5]  
(MLRA 10:6)

(Metals--Hardening) (Quality control)

AYSKIN, Solomon Yefimovich; FOGEL', A.A., kandidat tekhnicheskikh nauk, redaktor; SPITSYN, M.A., kandidat tekhnicheskikh nauk, redaktor; SLUKHOTSKIY, A.Ye., kandidat tekhnicheskikh nauk, redaktor; GLUKHA<sup>+</sup>NOV, N.P., kandidat tekhnicheskikh nauk, redaktor; BANYNER, A.B., inzhener, redaktor; SIMONOVSKIY, N.Z., redaktor izdatel'stva; DONSKOY, A.V., professor, doktor tekhnicheskikh nauk, retsenzent; SYCHEVA, O.V., tekhnicheskij redaktor

[Hardening machines] Zakalochnye stanki. Izd. 2-oe, ispr. i dop. Pod red. A.A.Fogelia. Moskva, Gos.nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1957. 46 p. (Biblioteka vysokochastotnika-termista, no.11)

(Induction heating) (Metals--Hardening)

ZHEZHERIN, Rostislav Petrovich; SPITSYN, Mikhail Aleksandrovich, kandidat tekhnicheskikh nauk; FOGEL', A.A., kandidat tekhnicheskikh nauk, redaktor; SLUKHOTSKIY, A.Ye., kandidat tekhnicheskikh nauk, redaktor; GLUKHANOV, N.P., kandidat tekhnicheskikh nauk, redaktor; BAMUNER, A.V., inzhener, redaktor; SIMONOVSKIY, N.Z., redaktor izdatel'stva; DONSKOY, A.V., professor, doktor tekhnicheskikh nauk, retsenzent; SYCHEVA, O.V., tekhnicheskiy redaktor.

[Power generators for high-frequency heating] Mashinnye gegeratory dlia vysokochastotnogo nagreva, Izd.2-oe, ispr. i dop. Pod red. A.A. Fogelia, Moskva, Gos.nauchno-tekhn.isd-vo mashinostroit.lit-ry, 1957. 49 p. (Bibliotekhka vysokochastotnika-termista, no.8)

(MIRA 10:6)

(Induction heating) (Electric generators)

SHEKALOV, Aleksandr Alekseyevich; SHTREYS, Yakov Iosifovich; BLINOV, Boris Vladimirovich; DONSKOY, A.V., professor, doktor tekhnicheskikh nauk, retsenzent; FOGEL', A.A., kandidat tekhnicheskoy nauk, redaktor; SPITSYN, M.A., kandidat tekhnicheskikh nauk, redaktor; ~~SLUTCHOTSKIY, A.Ya.~~, kandidat tekhnicheskikh nauk, redaktor; GLUKHANOV, M.P., kandidat tekhnicheskikh nauk, redaktor; BANUMER, A.V., inzhener, redaktor; SIMONOVSKIY, M.Z., redaktor izdatel'stva; SYCHEVA, O.V., tekhnicheskoy redaktor

[Smelting in small coreless induction furnaces] Plavka v malyykh besserdechnikovykh onduktsionnykh pechakh. Izd. 2-oe, ispr. i dop. Pod red. A.A.Fogelia. Moskva, Gos. nauchno-tekhn.izd-vo mashinostroitel'ny, 1957. 53 p. (Biblioteka vysokochastotnika-termisto, no.14)

(MIRA 10:7)

(Electric furnaces)



SLUKHOTSKIY, Aleksandr Yevgenievich, kandidat tekhnicheskikh nauk; FOGEL', A.A., kandidat tekhnicheskikh nauk, redaktor; SPITSYN, M.A., kandidat tekhnicheskikh nauk, redaktor; GLUKHANOV, N.P., kandidat tekhnicheskikh nauk, redaktor; BAMUNER, A.B., inzhener, redaktor; VASIL'YEVA, V.I., redaktor izdatel'stva; DONSKOY, A.V., professor, doktor tekhnicheskikh nauk, redaktor; SYCHEVA, O.V., tekhnicheskiy redaktor.

[Inductors used in steel hardening] Zakalochnye induktory. Izd.2-ee, ispr. 1 dop. Pod. red.A.A.Fogelia. Moskva, Gos.nauchno-tekhn. izd-vo mashinostroit.lit-ry, 1957. 54 p. (Biblioteka vysokoschastetnika-termista, no.6) (MLRA 10:6)

(Induction heating) (Steel--Hardening)

SHAMOV, Aleksandr Nikolayevich; FOGEL', A.A. kandidat tekhnicheskikh nauk, redaktor; SPITSYN, M.S., kandidat tekhnicheskikh nauk, redaktor; SLUKHOTSKIY, A.Ye., kandidat tekhnicheskikh nauk, redaktor; GLUKHANOV, N.P., kandidat tekhnicheskikh nauk, redaktor; BAKUMER, A.V., inzhener, redaktor; SIMONOVSKIY, M.Z., redaktor izdatel'stva; DONSKOY, A.V., professor, doktor tekhnicheskikh nauk, retsenzent; SYCHEVA, O.V., tekhnicheskij redaktor.

[Current supply of high-frequency heating installations by power generators] Pitaniye vysokochastotnykh nagrevatel'nykh ustroystv ot mashinnykh generatorov, Izd.2-ee, ispr. 1 dop. Pod red. A.A. Fogelia. Moskva, Gos.nauchno-tekhn.izd-vo mashinestroit. lit-ry, 1957. 55 p. (Bibliotekha vysokochastotnika-termista, no.10)

(MLA 10:6)

(Induction heating)

GLUKHANOV, Nikolay Parmenovich , ; FOGEL', A.A., kandidat tekhnicheskikh nauk, redaktor; SPITSYN, M.A., kandidat tekhnicheskikh nauk, redaktor; ~~SLUKHOTSKIY, A.Ye.~~, kandidat tekhnicheskikh nauk, redaktor; BAMYNER, A.V., inzhener, redaktor; SIMONOVSKIY, N.Z., redaktor izdatel'stva; SYCHEVA, O.V., tekhnicheskij redaktor.

[Physical basis of high frequency heating] Fizicheskie osnovy vysokochastotnogo nagreva, Izd.2-oe, ispr.1 dorp. Pod red. A.A. Fogelia. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit.lit-ry, 1957. 58 p. (Biblitechka vysokochastotnika-termista, no.2) (MLRA 10:5)  
(Induction heating)

BRITSYN, N.L.; DONSKOY, A.V., prof., doktor tekhn.nauk, retsenzent; FOGEL',  
A.A., kand.tekhn.nauk, red.; SPITSYN, M.A., kand.tekhn.nauk, red.;  
SLUKHOTSKIY, A.Ye., kand.tekhn.nauk, red.; GLUKHANOV, N.P., kand.  
tekhn.nauk, red.; BAMUNER, A.V., inzh., red.; GOFMAN, Ye.K., red.  
izd-va; SPERANSKAYA, O.V., tekhn.red.

[High-frequency electric field heat treatment] Nagrev v elektriche-  
skom pole vysokoi chastoty. Izd. 2-oe, ispr. 1 dop. Pod red. A.A.  
Fogelis. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit. lit-ry,  
1957. 62 p. (Bibliotekha vysokochastotnika-termista, no.15)  
(Dielectric) (MIRA 11:2)  
(Lumber--Drying)

VOLOGDIN, Vladislav Valentinovich; FOGEL', A.A., kandidat tekhnicheskikh nauk, redaktor; SPITSYN, M.A., kandidat tekhnicheskikh nauk, redaktor; SLUKHOTSKIY, A.Ye., kandidat tekhnicheskikh nauk, redaktor; GLUKHANOV, N.P., kandidat tekhnicheskikh nauk, redaktor; BAMUNER, A.V. inzhener, redaktor; SIMONOVSKIY, N.Z., redaktor izdatel'stva; KHORO-SHAYLOV, V.G., kandidat tekhnicheskikh nauk, retsentsent; SYCHEVA, O.V. tekhnicheskii redaktor.

[Induction seldering]. Faika pri industriennom nagreve. Ind.2-ee, ispr. i dep. Fed.red.A.A.Fogelia. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit.lit-ry, 1957. 66 p. (MLRA 10:6)  
(Induction heating)(Solder and soldering)

BOGDANOV, Valentin Nikolayevich; FOGEL', A.A. kandidat tekhnicheskikh nauk, redaktor; SPITSYN, M.A., kandidat tekhnicheskikh nauk, redaktor; SLUKHOTSKIY, A.Ye., kandidat tekhnicheskikh nauk, redaktor; GLUKHANOV, G.P., kandidat tekhnicheskikh nauk, redaktor; BAMUNER, A.V., inzhener, redaktor; VASIL'YEVA, V.P., redaktor izdatel'stva; DONSKOY, A.V., professor, doktor tekhnicheskikh nauk, retsenzent; SYCHEVA, O.V., tekhnicheskij redaktor.

[Use of through induction heating in industry] Primenenie skvozno  
induktsionnogo nagreva v promyshlennosti. Izd.2-oe, ispr. i dop.  
Pod red. A.A.Fogelia. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit.  
lit-ry, 1957. 78 p.(Bibliotekha vysokochastotnika-termista, no.12)  
(MLRA 10:6)

(Induction heating)  
(Metals--Heat treatment)

POPOV Vsevolod Valentinovich; SLUKHOT A.Y., Aleksandr Leonidovich;  
 DOLBKOY, A.V., professor, doktor tekhnicheskikh nauk, korespondent;  
 POZEL', A.A., kandidat tekhnicheskikh nauk, redaktor; PRITSYN, I.A.,  
 kandidat tekhnicheskikh nauk, redaktor; SLUKHOT A.Y., A.Ye., kandi-  
 dat tekhnicheskikh nauk, redaktor; SLUKHANOV, N.P., kandidat tekhn-  
 icheskikh nauk, redaktor; SAMUNER, A.V., inzhener, redaktor;  
 VASIL'YEV, V.P., redaktor izdatel'stva; SPERANSKAYA, M.V., tekhn-  
 icheskij redaktor

[Transformers for high-frequency heating] Transformatory dlya  
 vysokochastotnogo nagreva. Pod red. A.A.Pozella. Moskva, Gos.  
 nauchno-tekhn.izd-vo mashinostroit. lit-ry, 1957. 72 s. (Biblioteka  
 vysokochastotnika-termista, no.7) (MIRA 10:11)  
 (Induction heating) (Electric transformers)

SOV/137-58-10-20887

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 10, p 76 (USSR)

AUTHOR: Slukhotskiy, A.Ye.

TITLE: Through Heating of Forge Blanks of Rectangular Cross Section  
(O skvoznom nagreve kuznechnykh zagotovok pryamougol'nogo secheniya)

PERIODICAL: V sb.: Prom. primeneniye tokov vysokoy chastoty. Riga, 1957, pp 64-72

ABSTRACT: Equations and their derivations are advanced for determining the effective thickness of the active layer, the efficiency of the inductor, and the power expended in the induction heating (H) of sheets (S) and sandwiches. It is found that when S are heated, the interval of optimum frequencies is considerably broader than in the H of cylinders. Fluctuations in the electrical efficiency of the inductor within the interval of optimum frequencies is considerably weaker than in the H of cylinders. The results of experimental verification make it possible to conclude that the theory is in good agreement with experiment even when the ratio of width to thickness of the S is  $\sim 3$ .

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1. Induction heating--Mathematical analysis
2. Metals--Heating

M.Ts.



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SOV/112-59-4-7273

Translation from: Referativnyy zhurnal. Elektrotehnika, 1959, Nr 4, p 118 (USSR)

AUTHOR: Slukhotskiy, A. Ye., and Bamuner, A. V.

TITLE: Automatic Stabilization of Heating in Outfits Using Electron-Tube Oscillators

PERIODICAL: V sb.: Prom. primeneniye tokov vysokoy chastoty. Riga, 1957, pp 232-241

ABSTRACT: Two types of thermal-treatment stabilization are in use in induction-heating electron-tube outfits: stabilizing the oscillator operating conditions and stabilizing the surface temperature by a direct method. The first method includes maintaining constant the tube-heater and average anode voltages within  $\pm 1.5\%$  by resonant stabilizers and by automatic control of firing angles of rectifier thyratrons and also by smoothing filters. The scheme, characteristics, and data of a SAN-56 anode-voltage stabilizer are presented. It maintains the anode voltage constant when load and supply voltage vary and

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SOV/112-59-4-7273

Automatic Stabilization of Heating in Outfits Using Electron-Tube Oscillators

permits a continuous adjustment of voltage. Functioning of the second-method stabilization scheme — a temperature pickup with an FEP NII TVCh photopyrometer — is described. The photopyrometer operates on a deviation of the work temperature from the prescribed temperature and changes the oscillator power by controlling its anode voltage; the latter is done by a phototube and an electron amplifier whose output includes controlled-magnetization reactors connected in the arms of a phase-shifting bridge. The bridge controls the phase of the voltage on the thyatron grids. The stabilization accuracy is  $\pm 5^\circ$  within the 700-1,300°C range for supply voltage variation 180-260 v. Bibliography: 2 items.

L.A.G.

Card 2/2

AUTHORS: Slakhotkiy, A.Ye., Vasil'yev A.S. and Martsinovich, V.M. SOV/109-4-1-9/30

TITLE: Analysis of the Operation of a Series-type Thyatron Converter (Analiz raboty posledovatel'nogo ionnogo preobrazovatelya)

PERIODICAL: Radiotekhnika i Elektronika, 1959, Vol 4, Nr 1, pp 63 - 69 (USSR)

ABSTRACT: The principles of the operation of a series-type converter is known (Ref 1). Two series converter circuits are shown in Figures 1 and 2. The circuit of Figure 1 employs two thyatrons but is asymmetrical. The circuit of Figure 2 is a push-pull arrangement. The operation of the two circuits is similar and can be analysed in the same manner, provided it is assumed that the capacitances  $C_1$  and  $C_2$  of the circuit of Figure 2 are each equal to half the total capacitance of the circuit of Figure 1. The operation of the circuit of Figure 2 is as follows. During the half-period, when the tube 1 is open, the capacitor  $C_2$  is charged through the network  $RL_1$  and the capacitor  $C_1$  is charged through this network. During the succeeding

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Analysis of the Operation of a Series-type Thyatron Converter

half-period, the tube 2 is ignited and the capacitor  $C_2$  is discharged, while  $C_1$  is discharged through  $RL_2$ . The condition necessary for the operation of the system is that the voltage at the choke, at the instant of the ignition of a tube, should be higher than the supply voltage  $E$ . The equivalent circuit of the converter of Figure 2 can be represented on a network consisting of  $L$ ,  $RC$  and four switches (see Figure 3). During one of the half-periods, the switches 1-2 of Figure 3 are closed while the switches 3-4 are opened and the current flows in the direction indicated by the arrow in Figure 3. During the next half-period, the contacts 3-4 are closed and the contacts 1-2 are open so that the current flows in the opposite direction. The current in the choke has always the same direction. For the purpose of analysis, it is assumed that the voltage applied to the equivalent circuit is equal to half the source voltage. For each half-period of the supply voltage, the operation of the system can be described by:-

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$$\frac{1}{2} E = L \frac{di}{dt} + iR + \frac{1}{C} \int i dt \quad (1) .$$

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# Analysis of the Operation of a Series-type Thyatron Converter

If the notation defined by Eq (2) is adopted, Eq (1) can be written in the form of Eq (5). If it is assumed that the network of Figure 3 operates in the oscillatory regime, the solution of Eq (5) is written as:

$$i = Be^{\frac{R}{2L}t} \sin(\omega_0 t + \varphi) \quad (6)$$

where  $\omega_0$  is the natural frequency of the network, while the constants  $B$  and  $\varphi$  can be determined from the initial conditions. If it is assumed that  $\omega_0/\omega = n'$ , where

$\omega$  is the frequency of the supply voltage, the initial conditions for the resistor current and for the voltage across the condenser can be written as Eqs (14) and (15), respectively.  $T$  in these equations denotes the period of the supply-voltage frequency. From these initial conditions, it follows that  $\varphi$  can be expressed by Eq (17), while  $B$  is given by Eq (19) where  $k = RT/8L$ . The effective normalised current or the voltage across the

Card3/4 resistance is, therefore, expressed by Eq (24), while the

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## Analysis of the Operation of a Series-type Thyatron Converter

maximum inverse voltage of the system is expressed by Eq (30). The so-called closing time of the system can be found from Eq (32), where  $u_L$  denotes the voltage across the choke, the closing time is defined as the interval between the inception of the switching and the instant when the voltage at the choke becomes equal to the supply voltage. Eq (32) can also be written as Eq (34). The above formulae were used to construct a number of graphs. These are shown in Figures 6, 7, 8. Figure 6 represents the voltage across the resistance as a function of  $k$ , Figure 7 shows the closing time characteristics in terms of  $k$ , while Figure 8 gives the values of the maximum inverse voltage as a function of  $k$ . Some experimental measurements were carried out and it was found that the discrepancies between the measured values and the results calculated by means of the formulae were less than 10%. There are 8 figures and 2 references, 1 of which is Soviet and 1 German.

SUBMITTED: April 15, 1957

Card4/4

ST. URBANOVICH, A. Ye., auth. trans. trans.

Operation of a self-excited electronic inverter.  
NIIETI no. 1, vol. 19, 1967.

Trudy  
(MIRA 1967)

PHASE I BOOK EXPLOITATION

SOV/5693

Vasil'yev, Aleksandr Sergeyevich, and Aleksandr Yevgen'yevich  
Slukhotskiy

Ionnyye i elektronnyye inventory vysokoy chastoty (Gas-Filled and  
Vacuum-Tube High Frequency Inverters) Moscow, Gosenergoizdat,  
1961. 177 p. 6,500 copies printed.

Ed.: A. V. Bamuner; Tech. Ed.: Ye. M. Soboleva.

PURPOSE: This book is intended for scientific and technical per-  
sonnel and for students in schools of higher education.

COVERAGE: The book gives an analysis of vacuum- and gas-filled  
tube inverters operating under stationary and transient condi-  
tions. The designing of basic units operating at elevated fre-  
quencies is examined and the circuits of vacuum- and gas-filled  
tube inverters used for the power supply of induction heating  
and ultrasound installations are reviewed. The book is largely  
based on the results of the authors' investigations at NII TVCh

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Gas-Filled and Vacuum-Tube (Cont.)

SOV/5693

(Nauchno issledovatel'skiy institut tokov vysokoy chastoty imeni Prof. V. P. Vologdina - - Scientific Research Institute of High-Frequency Currents imeni Prof. V. P. Vologdin) and at the Leningradskiy elektrotekhnicheskiy institut imeni V. I. Ul'yanova (Lenina) Leningrad Electrotechnical Institute imeni V. I. Ul'yanov (Lenin). A. V. Bamunov and V. M. Martsinovich, Engineers, members of NII TVCh, participated in the work. Chs. I and II, Sec. 20 of Ch. IV and sec. 21-24 of Ch. V were written by A. Ye. Slukhotskiy; Ch. III, Sec. 17-19 of Ch. IV, and Sec. 25-27 of Ch. IV, and sec. 25-27 of Ch. V by A. S. Vasil'yev. There are 19 references: 14 Soviet, 3 German, and 2 French.

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BAMUNER, A.V., inzh.; RUBCHINSKIY, A.V., kand.tekhn.nauk; SLUKHOTSKIY, A.Ye.,  
kand.tekhn.nauk

Ionic frequency converter for coverting 300 kw. power 1000 c.p.s.  
Vest.elektroprom. 33 no.2:30-33 F '62. (MIRA 15:2)  
(Electric current converters) (Frequency changers)

GOLOVIN, G.F., doktor tekhn. nauk, red.; DONSKOY, A.V., doktor  
tekhn. nauk, red.; SLUKHOTSKIY, A.Ye., kand. tekhn. nauk,  
red.; VOLOGDIN, Vs.V., dots., red.

[Industrial uses of high-frequency currents] Promyshlennoe  
primeneniye tokov vysokoi chastoty. Moskva, Mashinostroeniye  
1964. 331 p. (MIRA 17:7)

L 14117-66 LWA(R)/EWT(1)

ACC NR: AR6001443

UR/0196/65/000/009/N006/N006  
UDK 621.365.5.621.373.4

18  
B

SOURCE: Ref. zh. Elektrotehnika i energetika, Abs. 9N46

AUTHOR: Slukhotskiy, A.Ye.; Pushkin, V.Ya.

TITLE: A 60kv 70kc electronic inverter 25

CITED SOURCE: Tr. Vses. n.-i. in-ta tokov vysokoy chastoty, vyp. 5, 1964, 105-116

TOPIC TAGS: rotary inventor, electronic transformer, triode tube

TRANSLATION: A diagram and the comparative results of research on inverters with one and two anode plate inductors are given. The inverters are designed on the basis of an LPZ-67 generator substituting GU-22A tubes with GU-4A triodes, which permit higher dissipation of power on the screen and having a higher stability at 10 to 11 kv. The technical data and design of the new elements (systems of anode circuit, grid and anode choke, grid auto-transformer). The effect of the circuit coil capacitances on its efficiency is considered, and a theory on the processes in the grid circuit is given. For a network with chokes, connected between anodes of the tubes and with divided ac dc circuit, an 80% efficiency for the tubes at the anode has been obtained. 3 references. B. Zhukhovitskiy.

SUB CODE: 09

Card 1/1

SLUKHOTS'YIY, A.Ye., doktor tekhn. nauk (Leningrad); IUSHKIN, V.Ya., inzh.  
(Leningrad)

Analysis of the operation of an electronic converter with increased  
frequency and parallel anode circuit with active load. Elektrichestvo  
no.2:49-54 F '65. (MIRA 18:3)

PAVLOV, N.A., inzh.; SLUKHOTSKIY, A.Ye., doktor tekhn. nauk

Calculation of the distribution of temperatures along the cross section of cylindrical steel objects during induction heating. Izv. vys. ucheb. zav.; energ. 8 no.6:17-22 Je '65. (MIRA 18:7)

1. Leningradskiy elektrotekhnicheskii institut imeni Ul'yanova (Lenina), Predstavlena kafedroy elektrotermicheskikh ustanovok.

SLUKHOV, F.S., inzhener.

~~SLUKHOV, F.S., inzhener.~~

Let us disseminate the practices of outstanding workers. Tekst.  
prom.14 no.1:31 Ja '54.

(MLRA 7:2)

(Silk manufacture)

KORBANOVA, Z.N.; SLUKIN, A.D.; SHESTAKOVA, O.G.

Use of polystyrol resins in the mixture formula for  
protective rubbers. Kauch.i rez. 21 no.11:51-52 N '62.  
(MIRA 15:12)

1. Voronezhskiy shinnyy zavod.  
(Resins, Synthetic) (Rubber coatings)



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EPF(c)/ENP(j)/ENT(m)/BDS ASD/AFFTC Pr-./Pc-h RM/AM

ACCESSION NR: AP3001425

S/0138/63/000/004/0001/0005

AUTHOR: Shatalov, V. P.; Gostev, V. M.; Kry\*lova, I. A.; Artemov, V. M.;  
Shestakova, O. G.; Korbanova, Z. N.; Slukin, A. D.; Sotnikov, I. F.; Torbinskiy,  
A. N.

TITLE: Low-temperature polymerized butadiene-styrene rubber with a carbon black-  
oil filler

SOURCE: Kauchuk i rezina, no. 4, 1963, 1-5

TOPIC TAGS: polymerization, carbon black filler, oil filler, butadiene rubber,  
styrene rubber

ABSTRACT: Studies were conducted on the preparation of stable dispersions of various types of carbon black, with and without surface-active substances. The latter included potassium rosinate, Leukanol, and ammonium caseinate. The dispersions were prepared in ball mills, in jet mills, and by means of a vibrator. The kinetic and aggregate stability of the dispersions were determined. Potassium rosinate and Leukanol produced dispersions which did not separate for several days. The oil emulsion was prepared with the aid of stearic acid and triethanolamine. The carbon black dispersion was mixed with the latex of butadiene-styrene rubber

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ACCESSION NR: AP3001425

and into it was introduced the oil emulsion. The coagulation of this mass was best achieved by pouring it into a 9% solution of sodium chloride containing 7% sulfuric acid at 40C. It was found that the introduction of carbon black into the latex previous to coagulation had a favorable effect on the technological properties of the vulcanizates and permitted the processing of rubbers with a higher molecular weight. The KhAF brand of carbon black and the use of potassium rosinate as emulsifier produced vulcanized rubbers of superior strength and abrasive properties, with a higher modulus of elasticity and with a better adhesion to the cord. Pasyankov, N. V., Bondaryev, A. Ye., and Gergasevich, T. V. participated in the work. Orig. art. has: 3 tables.

ASSOCIATION: Voronezhskiy zavod sinteticheskogo kauchuka i Voronezhskiy shinnyy zavod (Voronezh Synthetic Rubber Plant and Voronezh Tire Plant)

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ACCESSION NR: AP3001429

S/0138/63/000/004/0021/0022

AUTHOR: Yukel'son, I. I.; Slukin, A. D.; Lautina, V. P.

TITLE: Compatibility of arylenealkyl polymers with natural and synthetic rubbers

SOURCE: Kauchuk i rezina, no. 4, 1963, 21-22

TOPIC TAGS: arylenealkyl polymer, natural rubber, synthetic rubber, plasticizer, carbochain polymer

ABSTRACT: The present work was undertaken for the purpose of locating plasticizers which would not impair the strength of rubbers. To this end arylenealkyl polymers were chosen which were of linear structure and in a liquid state, such as polyphenyleneethyl, polyethylphenyleneethyl, polychlorophenyleneethyl, and polyxylileneethyl. The compatibility of these with rubbers was determined by the kinetics of their swelling, which was estimated gravimetrically. The rubbers under test were the NK, the SKS-30 ARM, and the SKI-3. The kinetics of their compatibility with the oil PN-6 were taken as a standard. The compatibility of all arylenealkyl polymers, with the exception of the chloro-derivative, was far superior to that of the oil PN-6. The low polarity of the former and the high polarity of the chloro-derivative may have been responsible for the

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ACCESSION NR: AP3001429

difference. Rubbers SKI-3 and SKS-30 ARM showed the best compatibility with polyethylphenyleneethyl of molecular weight 1400 and with polychlorophenyleneethyl of molecular weight 1870, while natural rubber was most compatible with polyphenyleneethyl of molecular weight 1580. G. D. Alekseyeva participated in the determination of the decomposition temperatures of the polymers. Orig. art. has: 1 formula, 2 charts, and 1 table.

ASSOCIATION: Voronezhkiy tekhnologicheskii institut (Voronezh Technological Institute)

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